## THALES COMMUNICATIONS, INC.

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## **MBITR Accessories**

For the Multiband Inter/Intra Team Radio PRC 6991 The Most Capable Hand-Held Radio in the World

- Power Adapters
- Chargers
- Batteries
- Cases
- Audio Accessories
- Antennas
- Cables and Connectors
- Software Options





### **MBITR ACCESSORIES**

#### **POWER ADAPTERS**

#### Special Power Adapter Interface (SPAI)



**4101310-501** The SPAI provides a power adapter interface to allow the use of 12 to 32 VDC power sources to operate the transceiver, recharge the lithium-ion battery or both. The SPAI DC

Input Power Cable, sold separately, is terminated at one end with flying leads to allow compatibility with multiple DC sources, including vehicle cigarette lighters, vehicle batteries, solar cells and AC/DC converters. The SPAI is capable of operating in the same operational environments and under the same conditions as the radio, and it provides voltage and current control to ensure that the MBITR rechargeable batteries are not damaged by any of the alternate power sources. The SPAI weighs about 16 oz. and is less than 11 cubic inches. Requires SPAI DC Input Power Cable part number 3500470-504 (shown installed).

#### SPAI DC Input Power Cable 3500470-504



The SPAI DC Input Power Cable connects the SPAI to 12 to 32 VDC power sources to

operate the transceiver, recharge the lithium-ion battery or both. Two SPAI DC Input Power Cables are available: the vehicle cigarette lighter adapter plug (shown), or one with flying leads (3500460-501) to allow compatibility with multiple DC sources, including, vehicle batteries, solar cells and AC/DC converters. A fuse protects the power source during use. (Cable is shown with the SPAI connected.)

#### CHARGERS

#### Single-Station AC Lithium-Ion Battery Charger



1600581-1 The Single-Station AC Lithium-Ion Desktop Battery Charger operates from 90 to 260 VAC (50 to 60 Hz) and is capable of fully recharging one

discharged battery pack within three hours at a temperature of 21°C (±3°C) when the MBITR is not in operation.

#### 6-Way AC/DC Lithium-Ion Battery Charger



The AC/DC version of the 6-Way Desktop Battery Charger operates from

1600580-1

12 to 32 VDC and 90 to 260 VAC (50 to 60 Hz). The charger is capable of fully recharging six fully depleted/discharged MBITR battery packs within three hours at a temperature of 21°C (±3°C).

#### 6-Way AC Only Lithium-Ion Battery Charger



1600580-2 The AC Only version of the 6-Way Desktop Battery Charger operates from

90 to 260 VAC (50 to 60 Hz). The charger is capable of fully recharging six fully depleted/discharged MBITR battery packs within three hours at a temperature of 21°C (±3°C).

#### **Tactical Charger MA6751**



A6751 The Tactical Charger for the MBITR radio is designed specifically for military vehicular applications. The Tactical Charger is a two-slot charger, capable of charging any of the specified

MBITR lithium-ion batteries. Each slot is capable of charging the battery either with or without the MBITR connected, and provides an indicator of the charge state by means of a color LED on the face of the unit. The Tactical Charger utilizes a shielded DC input power cable with an in-line 15A fuse and two conductors, colored red and black.

#### BATTERIES

#### Lithium-Ion Rechargeable Battery 1600515-3



The Rechargeable Lithium-Ion Battery provides eight hours of operation at the 5-Watt transmit power level with an 8:1:1 (STDBY:RX:TX) duty cycle at a temperature of 21°C

(±3°C). Batteries are Department of Transportation (DOT)/Air Transportation Association (ATA) approved. An MBITR battery charger is required for charging.

#### Battery Cell Holder 4101240-501



The Battery Cell Holder for non-rechargeable batteries accepts 12 readily available, disposable, commercial or military standard, non-rechargeable lithium batteries (type DLI23A or BA5123 NSN 6135-01-351-1131) and

provides 10 hours of operation at the 5-Watt transmit power level with an 8:1:1 (STDBY:RX:TX) duty cycle at a temperature of 21°C (±3°C).

#### CASES

#### Holster 1600494-1



The Holster is made of ballistic nylon and incorporates belt-loop-type straps and military clips for attaching the transceiver to a belt, rucksack or load-carrying equipment (LCE). The Holster has a positive closure to prevent loss of the transceiver and is designed to allow operation of the radio while in the Holster.

(Shown with radio inside.)

#### Accessory Pack/Carrying Case 1600495-1



The Accessory Pack/ Carrying Case is made of ballistic nylon and holds the transceiver, spare battery, antenna complement, audio adapter device and a customer-provided audio accessory. The Accessory Pack/ Carrying Case also

has a positive closure to prevent loss of components and includes belt-loop-type straps and military clips for attaching the case to a rucksack or load-carrying equipment (LCE).

#### AUDIO ACCESSORIES

#### Hand-Held Speaker/Microphone 1600469-4



The Hand-Held Speaker/Microphone features a large pushto-talk (PTT) switch, an electret microphone, an AC coupled speaker and a resilient coiled cord. The speaker/ microphone is built for

use in rugged and hostile environments. The microphone element is appropriately filtered to provide robust communications in AM and SINCGARS modes.

#### Earphone Accessory for Speaker/Microphone



1100542-501 This Earphone plugs

into the jack on the speaker/microphone for clear audio in high-noise environments or for privacy

to receive calls with an earpiece. (Shown attached to the speaker/microphone.)

#### Maritime Headset 1600503-5



The Maritime Headset is immersible to 20 meters and contains an electret microphone, a fully sealed earphone and a sealed push-to-talk (PTT) switch with a connecting interface cable. The microphone element is appropriately pust communications

filtered to provide robust communications in AM and SINCGARS modes.

#### Tactical Urban Headset 1600567-1



Headset contains an electret microphone, earphone and web strap harness. The headset includes an adapter cable with an integral push-to-talk PTT switch that attaches to the transceiver audio connector. The

The Tactical Urban

microphone element is appropriately filtered to provide robust communications in AM and SINCGARS modes.

#### Commercial Lightweight Urban Headset



**1600551-2** The Commercial Lightweight Urban Headset is lightweight and rugged with a single speaker and an articulating boom microphone. The microphone

and speaker are noise suppressed and allow voice recognition in high-noise environments over all modes of radio operation. The headset employs an in-line under-arm push-to-talk (PTT) switch that can be attached in place via an attachment clip. The microphone element is appropriately filtered to provide robust communications in AM and SINCGARS modes.

#### Helmet Clip for Lightweight Urban Headset 85267



The Helmet Clip for the Lightweight Urban Headset allows the user to attach the speaker and boom-mic directly to the outside of a combat helmet, thus eliminating the need for a bulky headband.

#### Head Strap for Lightweight Urban Headset 85268



The Head Strap for the Lightweight Urban Headset provides the user with a soft headband alternative to the plastic behindthe-head version. The Head Strap is constructed of sturdy nylon and nylon mesh, and

has an adjustable Velcro closure. (Shown with headset.)

#### ANTENNAS

#### 30-88 MHz 1 Meter Blade Antenna 3100661-501



High-performance 1.2-meter VHF Blade Antenna provides not less than -10 dBi gain across the 30-88 MHz frequency band.

#### 90-512 MHz Broadband Antenna 3100662-501



Broadband/general purpose antenna is approximately 14 inches long and provides a minimum of -10 dBi gain across the 90-120 MHz range, not less than -2 dBi gain across the 120-300 MHz range and not less than -5 dBi over the 300-512 MHz range.

#### 116-174 MHz Antenna SS-1600293-1



High-performance VHF antenna is approximately 13 inches long and provides not less than -2 dBi gain across the 116-174 MHz frequency band.

#### 400-512 MHz Antenna SS-1600294-1



High-performance UHF antenna is approximately 6.5 inches long and provides not less than -2 dBi gain across the 400-512 MHz frequency band.

## MBITR ACCESSORIES

#### CABLES AND CONNECTORS

#### Cloning Cable 3500395-501



The Cloning Cable allows the transfer of radio operating parameters directly from one radio to another in the field with a simple cable. No other hardware is required.

#### Data Cable 3500396-501



The Data Cable allows the MBITR to be connected to a digital data device for receipt and transmission of digital data through a DB-25, RS-232 interface.

#### GPS Cable 3500465-501



The GPS Cable provides an interface between the MBITR and the PLGR I/II GPS device.

#### PDC Cable 3500466-501



The PDC cable provides an interface between the MBITR and the ViaSat VDC400/600 PCMCIA card.

#### Audio/Keyfill Adapter 3600190-1



The Audio/Keyfill Adapter allows the use of standard keyfill devices with the maritime version of the radio. (Not required for urban version MBITR.) The adapter also allows

the use of 6-pin audio devices with the maritime version of the radio, though this is not recommended for standard operations.

#### SOFTWARE OPTIONS

#### Expedient Retransmit Kit 1100540-501



When configured with the optional retransmit functionality, the MBITR can be used in a repeater mode by connecting two radios with the Retransmit Cable (part number 3500485-501). In this case, the two radio antennas need to be separated in distance and operating frequency to avoid desensitizing the receiver. The Expedient Retransmit Kit is recommended to minimize operational restrictions imposed by potential co-location issues. The Expedient Retransmit Kit is composed of the Retransmit Cable and additional external filters. Other filtering may be available to address specific operational requirements.

#### Retransmit Upgrade Option 1700339-1

Retransmit software upgrade option must be used with the Expedient Retransmit Kit.

#### SINCGARS 1700339-2

Frequency-hopping ECCM software upgrade option provides 30 to 88 MHz Single-Channel Ground and Airborne Radio System (SINCGARS) waveform.

#### HAVEOUICK I/II 1700339-3

Frequency-hopping ECCM software upgrade option supports 225 to 400 MHz aircraft and ground-to-air communications.

#### ANDVT Upgrade Option 1700339-4

Advanced Narrow-band Digital Voice Terminal (ANDVT) software upgrade provides narrowband (5 kHz) Type 1 encryption.



#### PC Programmer MA6941F



The PC Programmer with interface cable is a menu-driven, Microsoft Windows®compatible software program, capable of loading all operating parameters (e.g., preset channels) into the transceiver. Lockout of certain radio functions is also available, thereby eliminating accidental error entry through the transceiver front panel. The PC Programmer connects through an interface cable from the transceiver side connector to the DB-9, RS-232 port of an IBM-compatible, Windows-based PC. The PC Programmer does not load Type 1 encryption keys.

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